CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the

United States is:

1.   An image processing apparatus, comprising:

a scanning mechanism configured to read images;

a first memory storing a reference dot pattern indicating an anti-copy

background dot pattern;

a second memory storing image data;

an image accumulating mechanism configured to accumulate image data of an

original image which is read by the scanning mechanism into the second memory;

a detecting mechanism configured to detect a background dot pattern embedded

in a background image included in said image data of said original image accumulated

in said second memory;

a determining mechanism configured to compare said detected background dot

pattern with said reference dot pattern stored in said first memory and to determine

whether said detected background dot pattern is substantially identical to said

reference dot pattern; and

a code assigning mechanism configured to assign an identification code to said

image data having said detected background dot pattern and accumulated in said

31

second memory when said detected background dot pattern is determined by said

determining mechanism as substantially identical to said reference dot pattern.

2.   The image processing apparatus of claim 1, further comprising:

a communications mechanism configured to transmit to a specific computer

information indicative of a determination result from said determining mechanism and

said identification code assigned to said image data having said detected background

dot pattern when said detected background dot pattern is determined by said

determining mechanism as substantially identical to said reference dot pattern.

3.   The image processing apparatus of claim 1, further comprising:

a communications mechanism configured to encipher said image data having

said detected background dot pattern and stored in said second memory when said

detected background dot pattern is determined by said determining mechanism as

substantially identical to said reference dot pattern and to transmit to a specific

computer information indicative of a determination result from said determining

mechanism and said enciphered image data as well as said identification code assigned

to said image data having said detected background dot pattern.

4.   The image processing apparatus of claim 2, wherein said communications

mechanism transmits to said specific computer said information indicative of a

determination result from said determining mechanism and said enciphered image data

32

as well as said identification code assigned to said image data having said detected

background dot pattern.

5.   The image processing apparatus of claim 1, further comprising:

an information inputting mechanism configured to receive user input, said user

input including said identification code; and

a reproducing mechanism configured to reproduce said image data to which said

identification code is assigned when said information inputting mechanism receives

said user input of said information including said identification code.

6.   The image processing apparatus of claim 1, further comprising:

an information inputting mechanism configured to receive user input, said user

input including said identification code and an identification of a specific user;

an information verifying mechanism configured to verify said identification code

and said identification of said specific user; and

a reproducing mechanism configured to reproduce said image data to which said

identification code is assigned when said information inputting mechanism receives

said user input of said information including said identification code and said

identification of said specific user and when said information verifying mechanism

correctly verifies said identification code and said identification of said specific user.

7.   An image processing apparatus, comprising:

scanning means for reading images;

33

storing means for storing a reference dot pattern indicating an anti-copy

background dot pattern and image data;

accumulating means for accumulating image data of an original image which is

read by said scanning mechanism into said storing means;

detecting means for detecting a background dot pattern embedded in a

background image included in said image data of said original image accumulated in

said storing means;

determining means for comparing said detected background dot pattern with

said reference dot pattern stored in said storing means and determining whether said

detected background dot pattern is substantially identical to said reference dot pattern;

and

assigning means for assigning an identification code to said image data having

said detected background dot pattern and accumulated in said storing means when said

detected background dot pattern is determined by said determining means as

substantially identical to said reference dot pattern.

8. The image processing apparatus of claim 7, further comprising

communicating means for transmitting to a specific computer information

indicative of a determination result from said determining means and said

identification code assigned to said image data having said detected background dot

34

pattern when said detected background dot pattern is determined by said determining

means as substantially identical to said reference dot pattern.

9.   The image processing apparatus of claim 7, further comprising:

communicating means for enciphering said image data having said detected

background dot pattern and stored in said storing means when said detected

background dot pattern is determined by said determining means as substantially

identical to said reference dot pattern and transmitting to a specific computer

information indicative of a determination result from said determining means, said

enciphered image data, and said identification code assigned to said image data having

said detected background dot pattern.

10.   The image processing apparatus of claim 8, wherein said communicating

means transmits to said specific computer said information indicative of a

determination result from said determining means, and said enciphered image data,

andsaid identification code assigned to said image data having said detected

background dot pattern.

11.   The image processing apparatus of claim 7, further comprising:

inputting means for receiving user input, said user input including said

identification code; and

35

reproducing means for reproducing said image data to which said identification code is assigned when said information inputting means receives said user input of said information including said identification code.

12.   The image processing apparatus of claim 7, further comprising:

inputting means for receiving user input, said user input including said identification code and an identification of a specific user;

verifying means for verifying said identification code and said identification of said specific user; and

reproducing means for reproducing said image data to which said identification code is assigned when said inputting means receives said user input of said information including said identification code and said identification of said specific user and when said verifying means correctly verifies said user input including said identification code and said identification of said specific user.

13.   An image processing method, comprising:

storing a reference dot pattern indicating an anti-copy background dot pattern and image data;

reading an original image;

accumulating image data of said original image read by said reading step;

detecting a background dot pattern embedded in a background image included in said image data of said original image accumulated by said accumulating step;

36

comparing said background dot pattern detected by said detecting step with said

reference dot pattern stored by said storing step;

determining whether said detected background dot pattern is substantially

identical to said reference dot pattern; and

assigning an identification code to said image data having said detected

background dot pattern and accumulated by said accumulating step when said

detected background dot pattern is determined by said determining step as

substantially identical to said reference dot pattern.

14.   The image processing method of claim 13, further comprising:

transmitting to a specific computer information indicative of a determination

result from said determining step and said identification code assigned to said image

data having said detected background dot pattern when said detected background dot

pattern is determined by said determining step as substantially identical to said

reference dot pattern.

15.   The image processing method of claim 13, further comprising:

enciphering said image data having said detected background dot pattern and

stored by said storing step when said detected background dot pattern is determined by

said determining step as substantially identical to said reference dot pattern; and

transmitting to a specific computer information indicative of a determination

result from said determining step and said enciphered image data as well as said

37

identification code assigned to said image data having said detected background dot pattern.

16. The image processing method of claim 14, wherein said transmitting step transmits to said specific computer said information indicative of a determination result from said determining step, said enciphered image data, and said identification code assigned to said image data having said detected background dot pattern.

17. The image processing method of claim 13, further comprising:

receiving user input, said user input including said identification code; and

reproducing said image data to which said identification code is assigned when said receiving step receives said user input.

18. The image processing method of claim 13, further comprising:

receiving user input, said user input including said identification code and an identification of a specific user;

verifying said identification code and said identification of said specific user; and

reproducing said image data to which said identification code is assigned when said receiving step receives said user input of said information including said identification code and said identification of said specific user and when said verifying step correctly verifies said identification code and said identification of said specific user.

38

19.   A computer program product stored on a computer readable storage

medium for carrying out an image processing method, when run on an image

processing apparatus, said method comprising the steps of:

storing a reference dot pattern indicating an anti-copy background dot pattern

and image data;

reading an original image;

accumulating image data of said original image read by said reading step;

detecting a background dot pattern embedded in a background image included

in said image data of said original image accumulated by said accumulating step;

comparing said background dot pattern detected by said detecting step with said

reference dot pattern stored by said storing step;

determining whether said detected background dot pattern is substantially

identical to said reference dot pattern; and

assigning an identification code to said image data having said detected

background dot pattern and accumulated by said accumulating step when said

detected background dot pattern is determined by said determining step as

substantially identical to said reference dot pattern.

20.   The product according to claim 19, wherein said method further

comprises:

39

transmitting to a specific computer information indicative of a determination

result made by said determining step and said identification code assigned to said

image data having said detected background dot pattern when said detected

background dot pattern is determined by said determining step as substantially

identical to said reference dot pattern.

21. The product according to claim 19, said method further comprising:

enciphering said image data having said detected background dot pattern and

stored by said storing step when said detected background dot pattern is determined by

said determining step as substantially identical to said reference dot pattern; and

transmitting to a specific computer information indicative of a determination

result made by said determining step and said enciphered image data as well as said

identification code assigned to said image data having said detected background dot

pattern.

22. The product according to claim 20, wherein said transmitting step

transmits to said specific computer said information indicative of a determination result

made by said determining step and said enciphered image data as well as said

identification code assigned to said image data having said detected background dot

pattern.

23. The product according to claim 19, said method further comprising:

receiving user input, said user input including said identification code; and

40

reproducing said image data to which said identification code is assigned when

said receiving step receives said user input of said information including said

identification code.

24. The product according to claim 19, said method further comprising:

receiving user input, said user input including said identification code and an

identification of a specific user;

verifying said identification code and said identification of said specific user; and

reproducing said image data to which said identification code is assigned when

said receiving step receives said user input, and when said verifying step correctly

verifies said identification code and said identification of said specific user.

25. A computer readable medium storing computer instructions for

performing an image processing method, said method comprising:

storing a reference dot pattern indicating an anti-copy background dot pattern

and a first image data;

reading an original image;

accumulating a second image data of said original image read by said reading

step;

detecting a background dot pattern embedded in a background image included

in said second image data of said original image accumulated by said accumulating

step;

41

comparing said background dot pattern detected by said detecting step with said

reference dot pattern stored by said storing step;

determining whether said detected background dot pattern is substantially

identical to said reference dot pattern; and

assigning an identification code to said second image data having said detected

background dot pattern and accumulated by said accumulating step when said

detected background dot pattern is determined by said determining step as

substantially identical to said reference dot pattern.

26.   The storage medium according to claim 25, wherein said method further

comprising:

transmitting to a specific computer information indicative of a

determination result made by said determining step and said identification code

assigned to said second image data having said detected background dot pattern when

said detected background dot pattern is determined by said determining step as

substantially identical to said reference dot pattern.

27.   The storage medium according to claim 25, wherein said method further

comprising:

enciphering said second image data having said detected background dot

pattern and stored by said storing step when said detected background dot pattern is

determined by said determining step as substantially identical to said reference dot pattern; and

transmitting to a specific computer information indicative of a determination result made by said determining step and said enciphered image data as well as said identification code assigned to said image data having said detected background dot pattern.

28.   The storage medium according to claim 26, wherein said transmitting step transmits to said specific computer said information indicative of a determination result made by said determining step, and said enciphered image data, and said identification code assigned to said second image data having said detected background dot pattern.

29.   The storage medium according to claim 25, wherein said method further comprising:

receiving user input, said user input including said identification code; and

reproducing said second image data to which said identification code is assigned when said receiving step receives said user input of said information including said identification code.

30.   The storage medium according to claim 25, said method further comprising:

receiving user input, said user input including said identification code and an identification of a specific user;

43

verifying said identification code and said identification of said specific user; and

reproducing said image data to which said identification code is assigned when

said receiving step receives said user input of said information including said

identification code and said identification of said specific user and when said verifying

step correctly verifies said identification code and said identification of said specific

user.

44